

04CD 04-10-01
#2 OIPE

RAW SEQUENCE LISTING

DATE: 03/30/2001

PATENT APPLICATION: US/09/802,365

TIME: 11:09:45

Input Set : A:\Seqlist.txt

Output Set: N:\CRF3\03302001\I802365.raw

4 <110> APPLICANT: Whitehouse, Martha Jo
6 <120> TITLE OF INVENTION: Methods and Compositions for the
7 Treatment and Prevention of Erectile Dysfunction
10 <130> FILE REFERENCE: 1671.003
C--> 12 <140> CURRENT APPLICATION NUMBER: US/09/802,365
C--> 12 <141> CURRENT FILING DATE: 2001-03-09
12 <150> PRIOR APPLICATION NUMBER: 60/188,480
13 <151> PRIOR FILING DATE: 2000-03-10
15 <150> PRIOR APPLICATION NUMBER: 60/203,415
16 <151> PRIOR FILING DATE: 2000-05-11
18 <160> NUMBER OF SEQ ID NOS: 9
20 <170> SOFTWARE: FastSEQ for Windows Version 4.0
22 <210> SEQ ID NO: 1
23 <211> LENGTH: 441
24 <212> TYPE: DNA
25 <213> ORGANISM: Bos taurus
27 <220> FEATURE:
28 <221> NAME/KEY: CDS
29 <222> LOCATION: (1)...(441)
31 <400> SEQUENCE: 1
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33 Pro Ala Leu Pro Glu Asp Gly Gly Ser Gly Ala Phe Pro Pro Gly His
34 1 5 10 15
36 ttc aaa gat cca aaa cga cta tat tgt aaa aac ggg ggg ttc ttc cta 96
37 Phe Lys Asp Pro Lys Arg Leu Tyr Cys Lys Asn Gly Gly Phe Phe Leu
38 20 25 30
40 cga atc cac cca gat ggg cga gta gat ggg gta cga gaa aaa tcc gat 144
41 Arg Ile His Pro Asp Gly Arg Val Asp Gly Val Arg Glu Lys Ser Asp
42 35 40 45
44 cca cac atc aaa cta caa cta caa gcc gaa gaa cga ggg gta gta tcc 192
45 Pro His Ile Lys Leu Gln Leu Gln Ala Glu Glu Arg Gly Val Val Ser
46 50 55 60
48 atc aaa ggg gta tgt gcc aac cga tat cta gcc atg aaa gaa gat ggg 240
49 Ile Lys Gly Val Cys Ala Asn Arg Tyr Leu Ala Met Lys Glu Asp Gly
50 65 70 75 80
52 cga cta cta gcc tcc aaa tgt gta acc gat gaa tgt ttc ttc ttc gaa 288
53 Arg Leu Leu Ala Ser Lys Cys Val Thr Asp Glu Cys Phe Phe Phe Glu
54 85 90 95
56 cga cta gaa tcc aac aac tat aac acc tat cga tcc cga aaa tat tcc 336
57 Arg Leu Glu Ser Asn Asn Tyr Asn Thr Tyr Arg Ser Arg Lys Tyr Ser
58 100 105 110
60 tcc tgg tat gta gcc cta aaa cga acc ggg caa tat aaa cta ggg cca 384
61 Ser Trp Tyr Val Ala Leu Lys Arg Thr Gly Gln Tyr Lys Leu Gly Pro
62 115 120 125
64 aaa acc ggg cca ggg caa aaa gcc atc cta ttc cta cca atg tcc gcc 432
65 Lys Thr Gly Pro Gly Gln Lys Ala Ile Leu Phe Leu Pro Met Ser Ala
66 130 135 140

ENTERED

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68 aaa tcc taa 441
69 Lys Ser *
70 145
73 <210> SEQ ID NO: 2
74 <211> LENGTH: 146
75 <212> TYPE: PRT
76 <213> ORGANISM: Bos taurus
78 <400> SEQUENCE: 2
79 Pro Ala Leu Pro Glu Asp Gly Gly Ser Gly Ala Phe Pro Pro Gly His
80 1 5 10 15
81 Phe Lys Asp Pro Lys Arg Leu Tyr Cys Lys Asn Gly Gly Phe Phe Leu
82 20 25 30
83 Arg Ile His Pro Asp Gly Arg Val Asp Gly Val Arg Glu Lys Ser Asp
84 35 40 45
85 Pro His Ile Lys Leu Gln Leu Gln Ala Glu Glu Arg Gly Val Val Ser
86 50 55 60
87 Ile Lys Gly Val Cys Ala Asn Arg Tyr Leu Ala Met Lys Glu Asp Gly
88 65 70 75 80
89 Arg Leu Leu Ala Ser Lys Cys Val Thr Asp Glu Cys Phe Phe Phe Glu
90 85 90 95
91 Arg Leu Glu Ser Asn Asn Tyr Asn Thr Tyr Arg Ser Arg Lys Tyr Ser
92 100 105 110
93 Ser Trp Tyr Val Ala Leu Lys Arg Thr Gly Gln Tyr Lys Leu Gly Pro
94 115 120 125
95 Lys Thr Gly Pro Gly Gln Lys Ala Ile Leu Phe Leu Pro Met Ser Ala
96 130 135 140
97 Lys Ser
98 145
100 <210> SEQ ID NO: 3
101 <211> LENGTH: 441
102 <212> TYPE: DNA
103 <213> ORGANISM: Homo sapiens
105 <220> FEATURE:
106 <221> NAME/KEY: CDS
107 <222> LOCATION: (1)...(441)
109 <400> SEQUENCE: 3
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111 Pro Ala Leu Pro Glu Asp Gly Gly Ser Gly Ala Phe Pro Pro Gly His
112 1 5 10 15
114 ttc aag gac ccc aag cgg ctg tac tgc aaa aac ggg ggc ttc ttc ctg 96
115 Phe Lys Asp Pro Lys Arg Leu Tyr Cys Lys Asn Gly Gly Phe Phe Leu
116 20 25 30
118 cgc atc cac ccc gac ggc cga gtt gac ggg gtc cgg gag aag agc gac 144
119 Arg Ile His Pro Asp Gly Arg Val Asp Gly Val Arg Glu Lys Ser Asp
120 35 40 45
122 cct cac atc aag cta caa ctt caa gca gaa gag aga gga gtt gtg tct 192
123 Pro His Ile Lys Leu Gln Leu Gln Ala Glu Glu Arg Gly Val Val Ser
124 50 55 60
126 atc aaa gga gtg tgt gct aac cgt tac ctg gct atg aag gaa gat gga 240

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127 Ile Lys Gly Val Cys Ala Asn Arg Tyr Leu Ala Met Lys Glu Asp Gly
128 65 70 75 80
130 aga tta ctg gct tct aaa tgt gtt acg gat gag tgt ttc ttt ttt gaa 288
131 Arg Leu Leu Ala Ser Lys Cys Val Thr Asp Glu Cys Phe Phe Phe Glu
132 85 90 95
134 cga ttg gaa tct aat aac tac aat act tac cgg tca agg aaa tac acc 336
135 Arg Leu Glu Ser Asn Asn Tyr Asn Thr Tyr Arg Ser Arg Lys Tyr Thr
136 100 105 110
138 agt tgg tat gtg gca ctg aaa cga act ggg cag tat aaa ctt gga tcc 384
139 Ser Trp Tyr Val Ala Leu Lys Arg Thr Gly Gln Tyr Lys Leu Gly Ser
140 115 120 125
142 aaa aca gga cct ggg cag aaa gct ata ctt ttt ctt cca atg tct gct 432
143 Lys Thr Gly Pro Gly Gln Lys Ala Ile Leu Phe Leu Pro Met Ser Ala
144 130 135 140
146 aag agc tga 441
147 Lys Ser *
148 145
151 <210> SEQ ID NO: 4
152 <211> LENGTH: 146
153 <212> TYPE: PRT
154 <213> ORGANISM: Homo sapiens
156 <400> SEQUENCE: 4
157 Pro Ala Leu Pro Glu Asp Gly Gly Ser Gly Ala Phe Pro Pro Gly His
158 1 5 10 15
159 Phe Lys Asp Pro Lys Arg Leu Tyr Cys Lys Asn Gly Gly Phe Phe Leu
160 20 25 30
161 Arg Ile His Pro Asp Gly Arg Val Asp Gly Val Arg Glu Lys Ser Asp
162 35 40 45
163 Pro His Ile Lys Leu Gln Leu Gln Ala Glu Glu Arg Gly Val Val Ser
164 50 55 60
165 Ile Lys Gly Val Cys Ala Asn Arg Tyr Leu Ala Met Lys Glu Asp Gly
166 65 70 75 80
167 Arg Leu Leu Ala Ser Lys Cys Val Thr Asp Glu Cys Phe Phe Phe Glu
168 85 90 95
169 Arg Leu Glu Ser Asn Asn Tyr Asn Thr Tyr Arg Ser Arg Lys Tyr Thr
170 100 105 110
171 Ser Trp Tyr Val Ala Leu Lys Arg Thr Gly Gln Tyr Lys Leu Gly Ser
172 115 120 125
173 Lys Thr Gly Pro Gly Gln Lys Ala Ile Leu Phe Leu Pro Met Ser Ala
174 130 135 140
175 Lys Ser
176 145
178 <210> SEQ ID NO: 5
179 <211> LENGTH: 468
180 <212> TYPE: DNA
181 <213> ORGANISM: Bos taurus
183 <220> FEATURE:
184 <221> NAME/KEY: CDS
185 <222> LOCATION: (1)...(468)

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Input Set : A:\Seqlist.txt

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187 <400> SEQUENCE: 5
188 atg gca gcc ggg agc atc acc acg ctg cca gcc cta cca gaa gat ggg      48
189 Met Ala Ala Gly Ser Ile Thr Thr Leu Pro Ala Leu Pro Glu Asp Gly
190 1      5      10      15
192 ggg tcc ggg gcc ttc cca cca ggg cac ttc aaa gat cca aaa cga cta      96
193 Gly Ser Gly Ala Phe Pro Pro Gly His Phe Lys Asp Pro Lys Arg Leu
194      20      25      30
196 tat tgt aaa aac ggg ggg ttc ttc cta cga atc cac cca gat ggg cga      144
197 Tyr Cys Lys Asn Gly Gly Phe Phe Leu Arg Ile His Pro Asp Gly Arg
198      35      40      45
200 gta gat ggg gta cga gaa aaa tcc gat cca cac atc aaa cta caa cta      192
201 Val Asp Gly Val Arg Glu Lys Ser Asp Pro His Ile Lys Leu Gln Leu
202      50      55      60
204 caa gcc gaa gaa cga ggg gta gta tcc atc aaa ggg gta tgt gcc aac      240
205 Gln Ala Glu Glu Arg Gly Val Val Ser Ile Lys Gly Val Cys Ala Asn
206 65      70      75      80
208 cga tat cta gcc atg aaa gaa gat ggg cga cta cta gcc tcc aaa tgt      288
209 Arg Tyr Leu Ala Met Lys Glu Asp Gly Arg Leu Leu Ala Ser Lys Cys
210      85      90      95
212 gta acc gat gaa tgt ttc ttc ttc gaa cga cta gaa tcc aac aac tat      336
213 Val Thr Asp Glu Cys Phe Phe Phe Glu Arg Leu Glu Ser Asn Asn Tyr
214      100      105      110
216 aac acc tat cga tcc cga aaa tat tcc tcc tgg tat gta gcc cta aaa      384
217 Asn Thr Tyr Arg Ser Arg Lys Tyr Ser Ser Trp Tyr Val Ala Leu Lys
218      115      120      125
220 cga acc ggg caa tat aaa cta ggg cca aaa acc ggg cca ggg caa aaa      432
221 Arg Thr Gly Gln Tyr Lys Leu Gly Pro Lys Thr Gly Pro Gly Gln Lys
222      130      135      140
224 gcc atc cta ttc cta cca atg tcc gcc aaa tcc taa      468
225 Ala Ile Leu Phe Leu Pro Met Ser Ala Lys Ser *
226 145      150      155
229 <210> SEQ ID NO: 6
230 <211> LENGTH: 155
231 <212> TYPE: PRT
232 <213> ORGANISM: Bos taurus
234 <400> SEQUENCE: 6
235 Met Ala Ala Gly Ser Ile Thr Thr Leu Pro Ala Leu Pro Glu Asp Gly
236 1      5      10      15
237 Gly Ser Gly Ala Phe Pro Pro Gly His Phe Lys Asp Pro Lys Arg Leu
238      20      25      30
239 Tyr Cys Lys Asn Gly Gly Phe Phe Leu Arg Ile His Pro Asp Gly Arg
240      35      40      45
241 Val Asp Gly Val Arg Glu Lys Ser Asp Pro His Ile Lys Leu Gln Leu
242      50      55      60
243 Gln Ala Glu Glu Arg Gly Val Val Ser Ile Lys Gly Val Cys Ala Asn
244 65      70      75      80
245 Arg Tyr Leu Ala Met Lys Glu Asp Gly Arg Leu Leu Ala Ser Lys Cys
246      85      90      95
247 Val Thr Asp Glu Cys Phe Phe Phe Glu Arg Leu Glu Ser Asn Asn Tyr

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Input Set : A:\Seqlist.txt

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248          100          105          110
249 Asn Thr Tyr Arg Ser Arg Lys Tyr Ser Ser Trp Tyr Val Ala Leu Lys
250          115          120          125
251 Arg Thr Gly Gln Tyr Lys Leu Gly Pro Lys Thr Gly Pro Gly Gln Lys
252          130          135          140
253 Ala Ile Leu Phe Leu Pro Met Ser Ala Lys Ser
254 145          150          155
256 <210> SEQ ID NO: 7
257 <211> LENGTH: 474
258 <212> TYPE: DNA
259 <213> ORGANISM: Homo sapiens
261 <220> FEATURE:
262 <221> NAME/KEY: CDS
263 <222> LOCATION: (1)...(468)
265 <400> SEQUENCE: 7
266 atg gca gcc ggg agc atc acc acg ctg ccc gcc ttg ccc gag gat ggc      48
267 Met Ala Ala Gly Ser Ile Thr Thr Leu Pro Ala Leu Pro Glu Asp Gly
268 1      5      10      15
270 ggc agc ggc gcc ttc ccg ccc ggc cac ttc aag gac ccc aag cgg ctg      96
271 Gly Ser Gly Ala Phe Pro Pro Gly His Phe Lys Asp Pro Lys Arg Leu
272          20          25          30
274 tac tgc aaa aac ggg ggc ttc ttc ctg cgc atc cac ccc gac ggc cga      144
275 Tyr Cys Lys Asn Gly Gly Phe Phe Leu Arg Ile His Pro Asp Gly Arg
276          35          40          45
278 gtt gac ggg gtc cgg gag aag agc gac cct cac atc aag cta caa ctt      192
279 Val Asp Gly Val Arg Glu Lys Ser Asp Pro His Ile Lys Leu Gln Leu
280          50          55          60
282 caa gca gaa gag aga gga gtt gtg tct atc aaa gga gtg tgt gct aac      240
283 Gln Ala Glu Glu Arg Gly Val Val Ser Ile Lys Gly Val Cys Ala Asn
284 65          70          75          80
286 cgt tac ctg gct atg aag gaa gat gga aga tta ctg gct tct aaa tgt      288
287 Arg Tyr Leu Ala Met Lys Glu Asp Gly Arg Leu Leu Ala Ser Lys Cys
288          85          90          95
290 gtt acg gat gag tgt ttc ttt ttt gaa cga ttg gaa tct aat aac tac      336
291 Val Thr Asp Glu Cys Phe Phe Phe Glu Arg Leu Glu Ser Asn Asn Tyr
292          100          105          110
294 aat act tac cgg tca agg aaa tac acc agt tgg tat gtg gca ctg aaa      384
295 Asn Thr Tyr Arg Ser Arg Lys Tyr Thr Ser Trp Tyr Val Ala Leu Lys
296          115          120          125
298 cga act ggg cag tat aaa ctt gga tcc aaa aca gga cct ggg cag aaa      432
299 Arg Thr Gly Gln Tyr Lys Leu Gly Ser Lys Thr Gly Pro Gly Gln Lys
300          130          135          140
302 gct ata ctt ttt ctt cca atg tct gct aag agc tga ttttaa      474
303 Ala Ile Leu Phe Leu Pro Met Ser Ala Lys Ser *
304 145          150          155
307 <210> SEQ ID NO: 8
308 <211> LENGTH: 155
309 <212> TYPE: PRT
310 <213> ORGANISM: Homo sapiens

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VERIFICATION SUMMARY

PATENT APPLICATION: US/09/802,365

DATE: 03/30/2001

TIME: 11:09:46

Input Set : A:\Seqlist.txt

Output Set: N:\CRF3\03302001\I802365.raw

L:12 M:270 C: Current Application Number differs, Replaced Current Application No

L:12 M:271 C: Current Filing Date differs, Replaced Current Filing Date